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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/384,646	08/27/1999	KEVIN BIRNIE	1-1-1-1	8093

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EXAMINER
PEREZ GUTIERREZ, RAFAEL

ART UNIT	PAPER NUMBER
2683	19

DATE MAILED: 02/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.	Applicant(s)
09/384,646	Birnie et al.
Examiner	**Art Unit**
Rafael Perez-Gutierrez	2683

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *Dec 23, 2002* .

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above, claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-18* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) ☒ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on *Feb 26, 2002* is/are a) ☐ accepted or b) ☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All b) ☐ Some* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
4) ☐ Interview Summary (PTO-413) Paper No(s). _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

1. In view of the appeal brief filed on December 23, 2002, PROSECUTION IS HEREBY REOPENED. New grounds of rejection are set forth above. **This action is made NON-FINAL.**

To avoid abandonment of the application, Appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office Action is non-final) or a reply under 37 CFR 1.113 (if this Office Action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

Drawings

2. The corrected drawing (i.e., figure 3) filed on February 26, 2002 is objected to because of the following minor informalities:

a) On **figure 3**, replace "I LANDSET" with --HANDSET-- in the text under the label "FIG. 3";

b) On **figure 3**, replace "ALTER" with --AFTER-- in the text under the label "FIG. 3"; and

c) On **figure 3 step 102**, replace "ALL" with --CALL--.

3. Applicant is required to submit a proposed drawing correction in reply to this Office Action. However, formal correction of the noted defect may be deferred until after the Examiner has considered the proposed drawing correction. Failure to timely submit the proposed drawing correction will result in the abandonment of the application.

Specification

4. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The following title is suggested: --**ENHANCED ROAMING NOTIFICATION DURING A CALL IN PROGRESS IN A WIRELESS COMMUNICATION SYSTEM**--.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office Action:

> A person shall be entitled to a patent unless -- (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

6. **Claim 1** is rejected under 35 U.S.C. 102(e) as being anticipated by **Dufour (U.S. Patent # 6,073,010)**.

Consider **claim 1**, Dufour clearly shows and discloses a method for alerting a mobile station M1-M10 (wireless terminal) user (figure 1) of a handoff of a call from a first base station B1-B10 (communication service station) (figure 1) to a second base station B1-B10 (communication service station) (figure 1), comprising the steps of:

receiving a handoff indicating message (column 4 lines 5 and 6);

determining whether a received identifier of the second base station B1-B10 (communication service station) (figure 1) is at least one of a collection of acceptable identifiers (inherently taught on column 2 lines 55-59, column 3 lines 31-39, column 5 lines 61-65, column 6 lines 7-23, and column 7 lines 12-20 where Dufour clearly discloses that the mobile switching center (MSC) 11 includes a database with the base stations B1-B10 included in the fixed subscription area (FSA) and that the MSC 11 determines whether or not the second base station B1-B10 (communication service station) (figure 1) is assigned to the FSA. To make such

determination, some kind of identifier for the second base station B1-B10 (communication service station) (figure 1) must be received at the MSC 11); and

producing an out-of-cell tone (audible alert) during the call if the second base station B1-B10 (communication service station) (figure 1) is not assigned to the FSA (i.e., as explained above, if the received identifier is not at least one of the collection of acceptable identifiers) (figures 1-2B, column 6 lines 52-55, column 7 lines 12-20, and column 8 lines 31-37).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office Action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the Examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the Examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. **Claims 8** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Dufour (U.S. Patent # 6,073,010)** in view of **Bartle et al. (U.S. Patent # 6,018,655).**

Consider **claim 8**, and **as applied to claim 1 above**, Dufour clearly discloses the claimed invention except that a vibrating indication or alert is used instead of the out-of-cell tone (audible alert).

Bartle et al. clearly show and disclose a cellular telephone 10 (wireless terminal) and a method for indicating to a user of an imminent inter-system handoff in which the cellular telephone 10 (wireless terminal) provides a visual, vibrating, or audible alert to the user upon determining that an inter-system handoff is imminent (figure 1 and column 9 lines 38-58).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Dufour with the teachings of Bartle et al. to provide additional alerting means, such as vibrating alerts, when a inter-system handoff is imminent in order to enable the user to be aware of the mobile station status. Such vibrating alert

in Dufour's invention would have been very useful in case the user does not hear or recognize the out-of-cell tone.

9. **Claims 1, 8, 15, and 17** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Mizikovsky (U.S. Patent # 5,255,307)** in view of **Barber et al. (U.S. Patent # 5,442,806)**, and further in view of **Bartle et al. (U.S. Patent # 6,018,655)**.

Consider **claims 1, 8, 15, and 17**, Mizikovsky clearly shows and discloses a mobile station 18 (wireless terminal) and a method for alerting a mobile station (wireless terminal) user of a handoff of a cell from a first communication service station 12 to a second communication service station 25 (figure 2), said mobile station 18 (wireless terminal) and method comprising:

a transceiver 32 (receiver) that receives a handoff indicating message (figure 8, column 9 lines 28-31 and 45-57, and claim 7);

a memory 44 containing System Identification Data (SID_S) (acceptable identifier) (figure 8 and column 13 lines 50-54); and

a microprocessor 60 (processor) that determines if a received System Identification Data (SID_R) (received identifier) of the second communication service station 25 match the stored System Identification Data (SID_S) (acceptable identifier) (figure 8, column 13 lines 50-54, and column 14 lines 26-32) and activates a visual status indicator 48 during the call (abstract and column 3 lines 41-45) if the received System Identification Data (SID_R) (received identifier) does not match the stored System Identification Data (SID_S) (acceptable identifier) (abstract, column 3

line 58 - column 4 line 8, column 10 lines 2-5, and column 13 lines 54-59).

Although Mizikovsky clearly disclose that the status indicator 48 of the mobile station (wireless terminal) is selectively controlled as the mobile station moves through service cells that are serviced by different providers (column 3 lines 41-45), Mizikovsky does not specifically discloses that the memory 44 contains a collection of acceptable identifiers (i.e., a plurality of SID's).

Barber et al. clearly show and disclose a cellular telephone 10 (wireless terminal) (figure 1) that includes, among other components, a memory 26 (figure 1) storing a plurality of preferred system identification codes (SIDs) (collection of acceptable identifiers) used by the cellular telephone 10 (wireless terminal) during the selection of a system when the telephone is roaming (abstract, figure 1, column 2 line 55 - column 3 line 36, and column 4 lines 15-49).

Therefore, it would have been clearly obvious to a person of ordinary skill in the art at the time the invention was made to slightly modify the teachings of Mizikovsky with the teachings of Barber et al. to include a plurality of preferred SID's in the memory 44 of Mizikovsky in order to allow the mobile station to selectively control the status indicator 48 using said SID's as suggested by Mizikovsky in column 3 lines 41-45.

Nonetheless, Mizikovsky, as modified by Barber et al., only discloses that the status indicator 48 outputs a visual indication to the user of a status change, and therefore, fails to disclose that an audible or a vibrating indication or alert to the user is outputted by the status indicator 48.

Bartle et al. clearly show and disclose a cellular telephone 10 (wireless terminal) and a method for indicating to a user of an imminent inter-system handoff in which the cellular telephone 10 (wireless terminal) provides a visual, vibrating, or audible alert to the user upon determining that an inter-system handoff is imminent (figure 1 and column 9 lines 38-58).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to further modify the combined teachings of Mizikovsky and Barber et al. with the teachings of Bartle et al. to provide additional alerting means, such as audible or vibrating alerts, when a inter-system handoff is imminent in order to enable the user to be aware of the mobile telephone status (i.e., roaming) without having the need of relying solely on a visual indication or alert. Such alternative indications or alerts (i.e., audible or vibrating alerts) would have been very useful in case the user does not see or recognize the visual indication or alert.

10. **Claims 2-7, 9-14, 16, and 18** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Mizikovsky (U.S. Patent # 5,255,307)** in view of **Barber et al. (U.S. Patent # 5,442,806)**, and further in view of **Bartle et al. (U.S. Patent # 6,018,655), as applied to claims 1, 8, 15, and 17**, and further in view of **Son et al. (U.S. Patent # 6,201,957 B1)**.

Consider **claims 2, 6, 7, 9, 13, 14, 16, and 18**, and **as applied to claims 1, 8, 15, and 17 above**, Mizikovsky, as modified by Barber et al. and Bartle et al., clearly discloses the claimed invention except that the call is automatically terminated, by means of the processor, after

producing the vibrating or audible alert if a call continuation indication is not received.

Son et al. clearly show and disclose a system and method for implementing flexible calling plans in which when a subscriber moves from a home region to a roaming region during a call, the subscriber is alerted and provide with four options to terminate the call, wherein among said options, an option of terminating the call is included (figure 4, column 5 lines 58-64, and column 6 line 44 - column 7 line 9).

Although Son et al. disclose that the call is dropped when the handset is out of range of the home of the base station, it would have been obvious to a person of ordinary skill in the art at the time the invention to slightly modify the teachings of Son et al. to automatically terminate the call if the subscriber has not provided a call continuation indication (i.e., selection of an option) after, for example, a predetermined time or a user programmed time.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to further modify the combined teachings of Mizikovsky, Barber et al., and Bartle et al. with the modified teachings of Son et al. in order to allow automatic termination of a call when the subscriber has failed to provided a call continuation indication, thereby protecting a subscriber of higher call charges when roaming to a visiting network.

Consider **claims 3-5 and 10-12**, and **as applied to claims 2 and 9 above**, although the combined teachings of Mizikovsky, Barber et al., Bartle et al., and Son et al. does not specifically disclose that the call continuation indication can be an utterance or an activation of key, the Examiner takes Official Notice that is notoriously well know in the art of mobile telephones to

provide indications or commands to a mobile telephone via speech (i.e., an utterance) or manually (i.e.,activation of a key) using information provided in a display of the mobile telephone. Several references showing the above features have been made of record at the conclusion of the Office Action dated May 23, 2002.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to further modify the combined teachings of Mizikovsky, Barber et al., Bartle et al., and Son et al. with well known teachings in the art of mobile telephones in order to provide an indication or command to the mobile telephone via speech (i.e., an utterance) or manually (i.e., activation of a key).

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.

Takahara et al. (U.S. Patent # 5,450,613) disclose a mobile communications equipment which detects and notifies when it is moved into or out of a service area; and

Haberman et al. (U.S. Patent # 5,613,204) disclose a beacon system for roaming cellular stations.

12. Any response to this Office Action should be **faxed to** (703) 872-9314 **or mailed to**:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

Hand-delivered responses should be brought to

Crystal Park II
2021 Crystal Drive
Arlington, VA 22202
Sixth Floor (Receptionist)

13. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Rafael Perez-Gutierrez whose telephone number is (703) 308-8996. The Examiner can normally be reached on Monday-Thursday from 6:30am to 5:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, William G. Trost IV can be reached on (703) 308-5318. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700 or call customer service at (703) 306-0377.

Rafael Perez-Gutierrez
R.P.G./rpg RAFAEL PEREZ-GUTIERREZ PATENT EXAMINER

February 10, 2003

WILLIAM TROST
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